LETTER REPORT FOR THE GIRARD LEATHER WORKS SITE ASSESSMENT GIRARD, TRUMBULL COUNTY, OHIO

Prepared for

U.S. ENVIRONMENTAL PROTECTION AGENCY
Region V Emergency Response Branch
25089 Center Ridge Road
Westlake, Ohio 44145

Prepared by

WESTON SOLUTIONS, INC.
6777 Engle Road, Suite C
Middleburg Heights, Ohio 44130

Date Prepared	January 24, 2005
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Contract Number	68-W-00-119
START Project Manager	Frank Beodray
Telephone No.	(440) 239-1978
U.S. EPA On-Scene Coordinator	Jim Augustyn

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January 31, 2005

Prepared by _____ Date 2/1/05
TJ McFarland
START Project Scientist

Reviewed & Approved by _____ Date 2/7/05
Frank Beodray
START Project Manager

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January 31, 2005

Mr. Jim Augustyn
On-Scene Coordinator
U.S. Environmental Protection Agency
Region V Emergency Response Branch
25089 Center Ridge Road
Westlake, Ohio 44145

Re: Girard Leather Works Site Assessment
Contract No.: 68-W-00-119
TDD: S05-0404-006
DCN: 448-2A-AEXH

Dear Mr. Augustyn:

Attached please find an analytical data file that summarizes the Girard Leather Works clarifier and lagoon sampling the Weston Solutions, Inc. (WESTON®) Superfund Technical Assessment and Response Team conducted with the U.S. Environmental Protection Agency (U.S. EPA) on December 17, 2004. WESTON's validation of the entire analytical package is also included. The analytical results have been compiled in a Microsoft Excel® spreadsheet that organizes and correlates the type of material sampled to each analyte.

U.S. EPA tasked WESTON START to perform sampling of the clarifier liquid, clarifier sludge, and lagoon soil at the Girard Leather Works facility. Previously, the Ohio Environmental Protection Agency (OEPA) and Tetra Tech, Inc. (Tetra Tech) sampled the clarifier liquid and clarifier sludge during separate sampling events. OEPA collected clarifier sludge samples approximately halfway out to the center of the clarifier from the clarifier catwalk. Tetra Tech collected clarifier sludge samples from the center near the end of the catwalk during winter months with icy conditions. Results from OEPA's and Tetra Tech's respective sampling efforts, however, were contradictory. Therefore, WESTON START's main objective was to assess which of the contradictory sampling results were more accurate based on a new round of sampling.

WESTON START, with U.S. EPA assistance, sampled four areas: a clarifier located at the northwest corner of the property and three areas that appeared to be capped or filled lagoons at the northeast corner of the property. Samples collected from each of these four areas were analyzed for total metals, volatile and semi-volatile organics by GC/MS, pesticides, total cyanide, and Toxicity

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Characteristic Leaching Procedure (TCLP) metals. Samples GL-008 (sludge from the clarifier) and GL-011 (soil from the east lagoon) had the highest detections for total metals and were re-analyzed for TCLP metals after reviewing the first round of results. The re-analysis was conducted to verify that the material collected in these samples, having such high concentrations of chromium, would not leach if placed in a landfill and consequently be characterized as a listed hazardous waste per 40 CFR 261. All the samples were sent to Severn Trent Laboratory (SLT North Canton), in Canton, Ohio, for analyses.

WESTON collected a total of three samples from the clarifier. Due to its structural instability, WESTON did not use the catwalk above the clarifier during the sampling event. WESTON START noted approximately 2 to 3 feet of sludge at the bottom of the clarifier underneath approximately 11 feet of overlying water. Therefore, both the sludge and water were sampled. Two clarifier sludge samples (GL-008 and GL-009) were collected using a Sludge Judge sampler from the north and south edges of the clarifier (approximately 2 to 3 feet from the edge). These samples were analyzed for total metals, volatile and semi-volatile organics, pesticides, and total cyanide. Sample GL-008 was later analyzed for TCLP metals. Portions of these two samples were later combined into a composite sample (GL-010), for a total of three sludge samples. Sample GL-010 was analyzed for TCLP metals, TCLP volatile and semi-volatile organics, and TCLP pesticides. The clarifier water sample (GL-007) was collected using a dedicated bailer from the upper 2 feet of water on the south edge of the clarifier, just west of the catwalk. This sample was analyzed for total metals, volatile and semi-volatile organics, pesticides, and total cyanide

A total of 10 soil samples were collected from three lagoons located in the northeast corner of the property: Three of the soil samples were collected from the east lagoon (GL-011, GL-012 [a composite of sample GL-011], and GL-020 [a composite sample of the interior lagoon wall]). Samples GL-011 and GL-020 were analyzed for total metals and total cyanide. Sample GL-012 was on hold at the laboratory but was not analyzed. Sample GL-011 was later analyzed for TCLP metals. Five soil samples were collected from the west lagoon (GL-013, GL-014, GL-015, GL-016 [a composite sample of GL-013, GL-014, and GL-015], and GL-019 [a composite sample of the interior lagoon wall]). Samples GL-013, GL-014, GL-015, and GL-019 were analyzed for total metals and total cyanide. Sample GL-016 was on hold at the laboratory but was not analyzed. Two soil samples were collected from a small lagoon just east of the east lagoon (GL-017 and GL-018). These samples were analyzed for total metals and total cyanide. Soil samples were collected from the surface soil to a maximum depth of 6 inches below ground surface.

All sampling was performed in Level D personal protective equipment (PPE) without instrumentation or air sampling. Select photo documentation of the sampling activities is provided in Attachment A;

a sampling location map is provided in Attachment B; an analytical hits summary table is provided in Attachment C; and the laboratory analytical results are provided in Attachment D.

Overall, the analytical results indicate the samples were below the detection levels for most compounds/chemicals analyzed. However, high concentrations were detected (most notably in samples GL-008 and GL-011) of some inorganic metals, particularly total chromium, which was a target compound for this investigation. TCLP metals results for sample GL-010 indicate levels of chromium leachate below Resource Conservation and Recovery Act (RCRA) hazardous waste standards. To corroborate the TCLP results for sample GL-010, U.S. EPA and WESTON directed the laboratory to run additional TCLP metals analysis on samples GL-008 and GL-011. TCLP metals results for samples GL-008 and GL-011 validated that the leachable levels of chromium from the clarifier sludge and lagoon soil were below the RCRA hazardous waste standards.

Results from WESTON START's sampling at the Girard Leather Works Facility supports the findings of high total metals in the clarifier sediment and lagoon soil. Based on this investigation and the samples collected by WESTON, the analytical results also indicate that the solid material in these areas do not leach, which would otherwise result in the classification as a hazardous waste.

Please call our office at (440) 239-1978 or Nonresponsive – personally identifiable info if any clarification is needed or if WESTON can be of further assistance.

Very truly yours,

WESTON SOLUTIONS, INC.

Frank Beodray
START Project Manager

TJ McFarland
START Project Scientist

Attachments: A Select Photo Documentation
B Sampling Location Map
C Analytical Hits Summary Table
D Laboratory Analytical Results and WESTON Validation Report

ATTACHMENT A

Select Photo Documentation

SITE: Girard Leather Works **DATE:** December 17, 2004

PHOTO NO: 1 **DIRECTION:** Northeast **SUBJECT:** Clarifier (south edge).

PHOTOGRAPHER: T. McFarland

SITE: Girard Leather Works **DATE:** December 17, 2004

PHOTO NO: 6 **DIRECTION:** **SUBJECT:** West lagoon (south end).

PHOTOGRAPHER: T. McFarland

SITE: Girard Leather Works **DATE:** December 17, 2004

PHOTO NO: 7 **DIRECTION:** North **SUBJECT:** East lagoon (south end).

PHOTOGRAPHER: T. McFarland

SITE: Girard Leather Works **DATE:** December 17, 2004

PHOTO NO: 10 **DIRECTION:** East **SUBJECT:** Sampling platform on the south edge of the clarifier (sample GL-008 collected at this location).

PHOTOGRAPHER: T. McFarland

SITE: Girard Leather Works

DATE: December 17, 2004

PHOTO NO: 12 **DIRECTION:** Northeast

SUBJECT: Clarifier and catwalk to the center of the clarifier.

PHOTOGRAPHER: T. McFarland

SITE: Girard Leather Works

DATE: December 17, 2004

PHOTO NO: 14 **DIRECTION:** Down

SUBJECT: Sample GL-008 (clarifier sludge sample).

PHOTOGRAPHER: T. McFarland

SITE: Girard Leather Works **DATE:** December 17, 2004

PHOTO NO: 15 **DIRECTION:** Down **SUBJECT:** Sample GL-009 (clarifier sludge sample).

PHOTOGRAPHER: T. McFarland

SITE: Girard Leather Works **DATE:** December 17, 2004

PHOTO NO: 17 **DIRECTION:** South **SUBJECT:** West lagoon (north end).

PHOTOGRAPHER: T. McFarland

SITE: Girard Leather Works **DATE:** December 17, 2004

PHOTO NO: 18 **DIRECTION:** South **SUBJECT:** East lagoon (north end).

PHOTOGRAPHER: T. McFarland

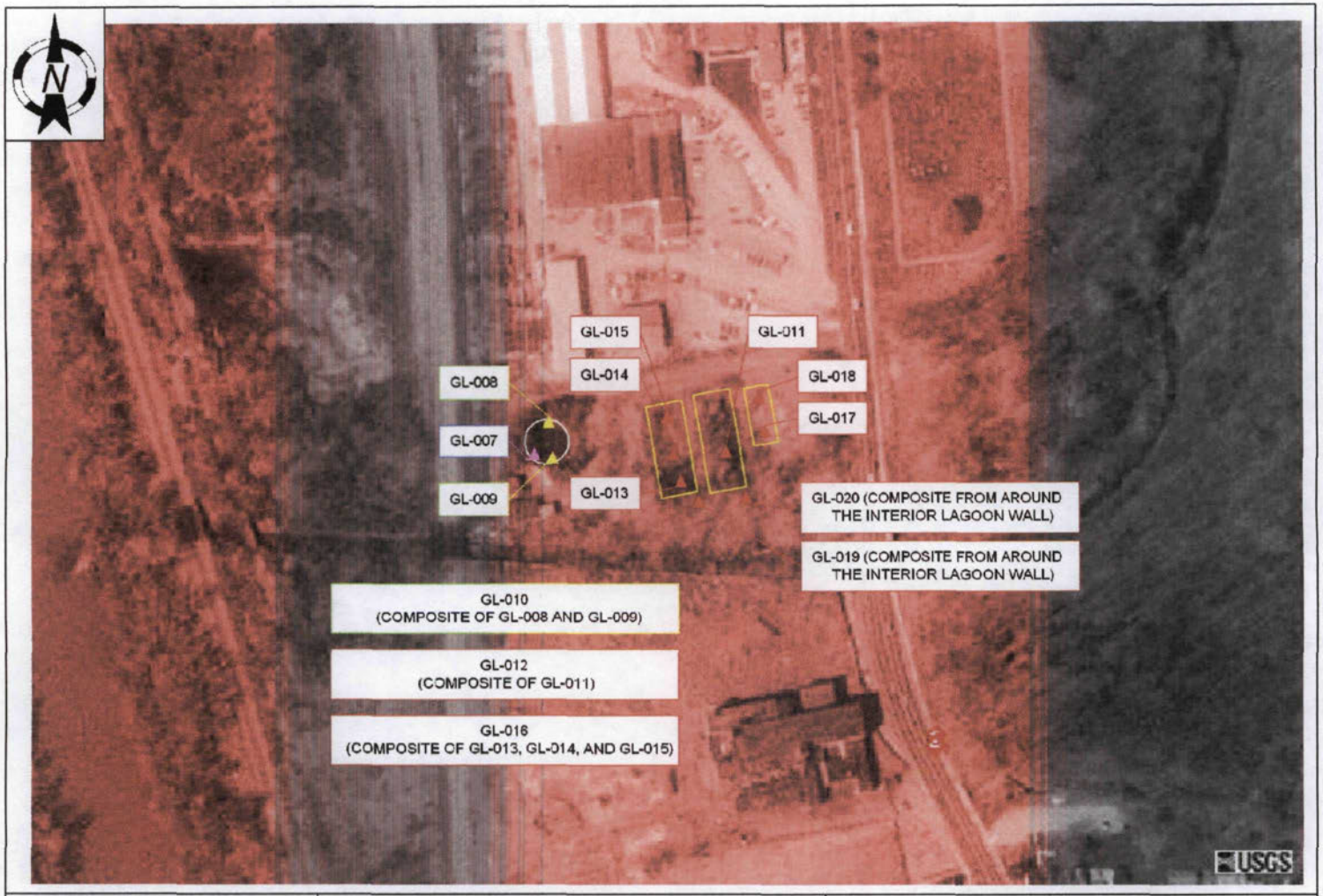
SITE: Girard Leather Works **DATE:** December 17, 2004

PHOTO NO: 19 **DIRECTION:** South **SUBJECT:** Small lagoon east of the east lagoon (north end).

PHOTOGRAPHER: T. McFarland

ATTACHMENT B

Sampling Location Map



- CLARIFIER SLUDGE SAMPLE
- CLARIFIER WATER SAMPLE
- LAGOON SOIL SAMPLE
- LAGOON
- CLARIFIER

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Restoring Resource Efficiency

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GIRARD LEATHERWORKS
SAMPLE LOCATION MAP
GIRARD, OHIO

DATE: DECEMBER 2004

ATTACHMENT B

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ATTACHMENT C

Analytical Hits Summary Table

START Analytical Data For Clarifier Liquid, Clarifier Sludge, and Lagoon Soil

Girard Leatherworks

Girard, Ohio

31-Dec-04

Parameter	Method	Liquid Units	Clarifier Water	Solid Units	Clarifier Sludge			East Lagoon Soil		West Lagoon Soil				Small Lagoon Soil	
			GL-007		GL-008	GL-009	GL-010	GL-011	GL-020	GL-013	GL-014	GL-015	GL-019	GL-017	GL-018
TCLP Metals Cont.															
Chromium	SW846 6010B			mg/L	0.068		0.2	0.059							
Lead	SW846 6010B			mg/L	0.014		0.008	0.0031							
Mercury	SW846 6010B			mg/L			0.000043 B,U								
Selenium	SW846 6010B			mg/L	0.0060		0.0063 U	0.0056							
Silver	SW846 6010B			mg/L											
TCLP Cyanide															
TCLP Cyanide	SW846 9012A			mg/L											
TCLP Organochorine Pesticides															
Heptachlor	SW846 8081A			mg/L			0.000041 J								
Methoxychlor	SW846 8081A			mg//L			0.000061 J								

KEY:

mg/L = milligrams per Liter

ug/L = micrograms per Liter

mg/Kg = milligrams per Kilogram

ug/Kg = micrograms per Kilogram

J = Estimated Value

B = Blank Contaminate

U = Not Detected

G = Elevated reporting limit due to matrix interferences

PG = Difference of 40% or greater between two detectors

* = Sample results derived from samples re-analyzed for TCLP Metals following the review of initial laboratory analytical results

NOTES:

Analytical results reported in this table are detected values and the corresponding analytes only. Non-detect values and the corresponding analytes are not listed in this table.

Samples GL-012 and GL-016 were on hold at the laboratory for TCLP metals analysis but were not analyzed

ATTACHMENT D

Laboratory Analytical Results

START Analytical Data For Clarifier Liquid, Clarifier Sludge, and Lagoon Soil

Girard Leatherworks

Girard, Ohio

31-Dec-04

Parameter	Method	Liquid Units	Clarifier Water	Solid Units	Clarifier Sludge			East Lagoon Soil		West Lagoon Soil				Small Lagoon Soil	
			GL-007		GL-008	GL-009	GL-010	GL-011	GL-020	GL-013	GL-014	GL-015	GL-019	GL-017	GL-018
Semivolatiles by GC/MS															
bis (2-Ethylhexyl) phthalate	SW846 8270C	ug/L	1.0 J	ug/Kg		1100 J									
Caprolactam	SW846 8270C	ug/L	1.5 J,B	ug/Kg											
2,4-Dimethylphenol	SW846 8270C	ug/L	1.2 J	ug/Kg											
bis (2-Ethylhexyl) phthalate	SW846 8270C	ug/L		ug/Kg											
bis (2-Ethylhexyl) phthalate	SW846 8270C	ug/L		ug/Kg											
Volatiles by GC/MS															
Acetone	SW846 8260B	ug/L	3.3 J	ug/Kg	1100 J	1300 J									
Carbon disulfide	SW846 8260B	ug/L	0.24 J	ug/Kg											
Isopropylbenzene	SW846 8260B	ug/L		ug/Kg	750 J	880 J									
Methyl acetate	SW846 8260B	ug/L		ug/Kg	430 J										
Methylcyclohexane	SW846 8260B	ug/L		ug/Kg	260 J	240 J									
Xylenes (total)	SW846 8260B	ug/L		ug/Kg	17000 J	22000 J									
Total Metals															
Aluminum	SW846 6010B	mg/L		mg/Kg	1770 J	1460 J		2070 J	4740 J	1990 J	4000 J	7400 J	4570 J	5990 J	5920 J
Antimony	SW846 6010B	mg/L		mg/Kg	17.6 B,G						0.78 B				
Arsenic	SW846 6010B	mg/L		mg/Kg					29.1	32.9 B,G	16.9	19.8	8.1 B,G	10.7	11.7
Barium	SW846 6010B	mg/L	0.019 B	mg/Kg	189	154		209	70.4	292	60.6	72.4	92.1	65.5	163
Beryllium	SW846 6010B	mg/L		mg/Kg				0.14 B	0.31 B	0.22 B	0.57 B	0.56 B	0.34 B	0.32 B	0.37 B

START Analytical Data For Clarifier Liquid, Clarifier Sludge, and Lagoon Soil

Girard Leatherworks

Girard, Ohio

31-Dec-04

Parameter	Method	Liquid Units	Clarifier Water	Solid Units	Clarifier Sludge			East Lagoon Soil		West Lagoon Soil				Small Lagoon Soil	
			GL-007		GL-008	GL-009	GL-010	GL-011	GL-020	GL-013	GL-014	GL-015	GL-019	GL-017	GL-018
Total Metals Cont.															
Cadmium	SW846 6010B	mg/L		mg/Kg	1.2 B	0.99 B		7.8	1.3	10.1	0.28 B	0.34 B	2.2	0.15 B	0.12 B
Calcium	SW846 6010B	mg/L	45.8	mg/Kg	198000	169000		174000	20400	136000	6430	4730	47500	4620	4240
Chromium	SW846 6010B	mg/L		mg/Kg	71500	58700		61500	2760	35400	154	609	13400	101	74.6
Cobalt	SW846 6010B	mg/L		mg/Kg	14.5 B	11.9 B		12.2 B	5.0 B	6.0 B	4.4 B	7.9 B	7.5 B	6.5 B	6.3 B
Copper	SW846 6010B	mg/L		mg/Kg	121	100		55.7	16.2	44.7	18.2	17.3	27.5	14.7	12.1
Iron	SW846 6010B	mg/L	0.29	mg/Kg	13700	10000		10700	20500	9320	16400	22000	16200	16800	16700
Lead	SW846 6010B	mg/L		mg/Kg	1140	927		327	52.4	260	34.7	32.2	127	26.5	20.7
Magnesium	SW846 6010B	mg/L	2.0 B,J	mg/Kg	1320 B	1110 B		1070 B	1240	859 B	955 B	1590	1270	1480	1410
Manganese	SW846 6010B	mg/L	0.083	mg/Kg	573	475		1010	586	311	433	643	609	494	510
Mercury	SW846 6010B	mg/L	0.000040 B,J	mg/Kg	2.2	2.2		1.0	0.19	0.92	0.096 B	0.084 B	0.34	0.070 B	0.050 B
Nickel	SW846 6010B	mg/L		mg/Kg	22.2 B	18.2 B		17.7 B	15.4	13.3 B	14.6	19.7	17.5	14.9	14.4
Potassium	SW846 6010B	mg/L	7.3	mg/Kg	590 B	505 B		222 B	881	153 B	569 B	989	799 B	890	992
Selenium	SW846 6010B	mg/L		mg/Kg				2.3	0.66 B	3.6	1.0	0.70 B	1.1		
Silver	SW846 6010B	mg/L		mg/Kg	30.1	22.1		5.8	0.25 B	4.2			1.3 B		
Sodium	SW846 6010B	mg/L	9.9	mg/Kg	1670 B	1320 B		873 B		736 B					
Thallium	SW846 6010B	mg/L		mg/Kg											
Vanadium	SW846 6010B	mg/L		mg/Kg	55.9	46.4		34.8	14.1	22.1	11.3	16	18.1	12.6	12.2
Zinc	SW846 6010B	mg/L		mg/Kg	327	472		211	201	257	147	122	254	119	100

START Analytical Data For Clarifier Liquid, Clarifier Sludge, and Lagoon Soil

Girard Leatherworks

Girard, Ohio

31-Dec-04

Parameter	Method	Liquid Units	Clarifier Water	Solid Units	Clarifier Sludge			East Lagoon Soil		West Lagoon Soil				Small Lagoon Soil	
			GL-007		GL-008	GL-009	GL-010	GL-011	GL-020	GL-013	GL-014	GL-015	GL-019	GL-017	GL-018
Total Cyanide															
Total Cyanide	SW846 9012A	mg/L		mg/Kg	1.0 B,J	0.99 B,J		1.3 B,J	0.38 B,J	0.64 B,J			0.58 B,J		
Organochlorine Pesticides															
beta-BHC	SW846 8081A	ug/L	0.039 J	ug/Kg											
Dieldrin	SW846 8081A	ug/L	0.0096 J	ug/Kg											
4,4'-DDE	SW846 8081A	ug/L		ug/Kg	42 J	74 PG									
4,4'-DDD	SW846 8081A	ug/L		ug/Kg	28 J	33 J									
alpha-Chlordane	SW846 8081A	ug/L		ug/Kg	54 J	52 J									
gamma-Chlordane	SW846 8081A	ug/L		ug/Kg	41 J	30 J									
TCLP Semivolatiles															
	SW846 9012A			mg/L											
TCLP Volatiles															
Benzene	SW846 8260B			mg/L			0.0015 B,J,U								
Methyl ethyl ketone	SW846 8260B			mg/L			0.0024 J								
Trichloroethylene	SW846 8260B			mg/L			0.0012 J								
TCLP Metals															
Arsenic	SW846 6010B			mg/L				0.0037 B							
Barium	SW846 6010B			mg/L	0.073 B		0.081 B	0.12 B							
Cadmium	SW846 6010B			mg/L			0.00043 B,U								